

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 OCT 23 The Derwent World Patents Index suite of databases on STN  
has been enhanced and reloaded  
NEWS 4 OCT 30 CHEMLIST enhanced with new search and display field  
NEWS 5 NOV 03 JAPIO enhanced with IPC 8 features and functionality  
NEWS 6 NOV 10 CA/CAPLUS F-Term thesaurus enhanced  
NEWS 7 NOV 10 STN Express with Discover! free maintenance release Version  
8.01c now available  
NEWS 8 NOV 20 CA/CAPLUS to MARPAT accession number crossover limit increased  
to 50,000  
NEWS 9 DEC 01 CAS REGISTRY updated with new ambiguity codes  
NEWS 10 DEC 11 CAS REGISTRY chemical nomenclature enhanced  
NEWS 11 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated  
NEWS 12 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and  
functionality  
NEWS 13 DEC 18 CA/CAPLUS pre-1967 chemical substance index entries enhanced  
with preparation role  
NEWS 14 DEC 18 CA/CAPLUS patent kind codes updated  
NEWS 15 DEC 18 MARPAT to CA/CAPLUS accession number crossover limit increased  
to 50,000  
NEWS 16 DEC 18 MEDLINE updated in preparation for 2007 reload  
NEWS 17 DEC 27 CA/CAPLUS enhanced with more pre-1907 records  
NEWS 18 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals  
NEWS 19 JAN 16 CA/CAPLUS Company Name Thesaurus enhanced and reloaded  
NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN  
NEWS 21 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data  
NEWS 22 JAN 22 CA/CAPLUS updated with revised CAS roles  
NEWS 23 JAN 22 CA/CAPLUS enhanced with patent applications from India  
NEWS 24 JAN 29 PHAR reloaded with new search and display fields  
NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in  
multiple databases  
NEWS 26 FEB 13 CASREACT coverage to be extended  
NEWS 27 FEB 15 PATDPASPC enhanced with Drug Approval numbers  
NEWS 28 FEB 15 RUSSIAPAT enhanced with pre-1994 records  
NEWS 29 FEB 23 KOREAPAT enhanced with IPC 8 features and functionality  
NEWS 30 FEB 26 MEDLINE reloaded with enhancements  
NEWS 31 FEB 26 EMBASE enhanced with Clinical Trial Number field  
NEWS 32 FEB 26 TOXCENTER enhanced with reloaded MEDLINE  
NEWS 33 FEB 26 IFICDB/IFIPAT/IFIUDB reloaded with enhancements  
NEWS 34 FEB 26 CAS Registry Number crossover limit increased from 10,000  
to 300,000 in multiple databases  
  
NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006..  
  
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=> file reg

COST IN U.S. DOLLARS

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ENTRY

SESSION

FULL ESTIMATED COST

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0.21

FILE 'REGISTRY' ENTERED AT 15:02:40 ON 07 MAR 2007

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STRUCTURE FILE UPDATES: 6 MAR 2007 HIGHEST RN 925228-12-2

DICTIONARY FILE UPDATES: 6 MAR 2007 HIGHEST RN 925228-12-2

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<http://www.cas.org/ONLINE/UG/regprops.html>

=> E "25 HYDROXYVITAMIN D"/CN 25

E1 1 25 AZA-19-NORCHOLESTA-1,3,5(10-TRIEN-3-O1)/CN

E2 1 25 HP 9-4/CN

E3 0 --> 25 HYDROXYVITAMIN D/CN

E4 1 25 HYDROXYVITAMIN D3 1-A HYDROXYLASE (HUMAN N-TERMINAL FRAGMENT)/CN

E5 1 25 KD ELONGATION FACTOR 1-BETA (LEISHMANIA MAJOR STRAIN FRIEDLIN)/CN

E6 1 25 KDA DEHYDRIN-LIKE PROTEIN (CORNUS SERICEA GENE ROD25)/CN

E7 1 25 KDA ENDOPROTEASE (SPODOPTERA FRUGIPERDA ASCOVIRUS 1A GENE ORF088)/CN

E8 1 25 KDA OOKINETE SURFACE ANTIGEN PRECURSOR (PFS25) (PLASMODIUM FALCIPARUM STRAIN 3D7 GENE PF10-0303)/CN

E9 1 25 KDA OUTER-MEMBRANE IMMUNOGENIC PROTEIN PRECURSOR (BRUCELLA MELITENSIS STRAIN 16M GENE BMEI1007)/CN

E10 1 25 KDA OUTER-MEMBRANE IMMUNOGENIC PROTEIN PRECURSOR (BRUCELLA MELITENSIS STRAIN 16M GENE BMEI1249)/CN

E11 1 25 KDA OUTER-MEMBRANE IMMUNOGENIC PROTEIN PRECURSOR (BRUCELLA MELITENSIS STRAIN 16M GENE BMEI1829)/CN

E12 1 25 KDA OUTER-MEMBRANE IMMUNOGENIC PROTEIN PRECURSOR (BRUCELLA MELITENSIS STRAIN 16M GENE BMEI1830)/CN

E13 1 25 KDA PROTEIN DEHYDRIN (SOLANUM SOGARANDINUM)/CN

E14 1 25 MCD 4/CN

E15 1 25 NCD 13/CN

E16 1 25 NCDV 14/CN

E17 1 25 ND 15/CN

E18 1 25 NDV 14/CN

E19 1 25 PN: WO0118542 TABLE: 2A-1 CLAIMED DNA/CN

E20 1 25 PN: WO0118542 TABLE: 3A-1 CLAIMED DNA/CN

E21 1 25 PN: WO0118542 TABLE: 4-1 CLAIMED DNA/CN

E22 1 25 PN: WO0118542 TABLE: 5-1 CLAIMED DNA/CN  
 E23 1 25'-EPI-CEPHALOSTATIN 7/CN  
 E24 1 25(27)-DEHYDROFUNGISTEROL/CN  
 E25 1 25(27)-DEHYDROGITOGENIN DIACETATE/CN

=> E "25-HYDROXYVITAMIN D"/CN 25

E1 1 25-HYDROXYSITOSTEROL/CN  
 E2 1 25-HYDROXYTACHYSTEROL3/CN  
 E3 3 --> 25-HYDROXYVITAMIN D/CN  
 E4 1 25-HYDROXYVITAMIN D 1-HYDROXYLASE/CN  
 E5 1 25-HYDROXYVITAMIN D 1A-HYDROXYLASE (MOUSE STRAIN 129/SVJ GENE  
 CYP27B1)/CN  
 E6 1 25-HYDROXYVITAMIN D 24-HYDROXYLASE/CN  
 E7 1 25-HYDROXYVITAMIN D-1A-HYDROXYLASE/CN  
 E8 1 25-HYDROXYVITAMIN D-1A-HYDROXYLASE (HUMAN KERATINOCYTE GENE  
 CYP1)/CN  
 E9 1 25-HYDROXYVITAMIN D2/CN  
 E10 1 25-HYDROXYVITAMIN D2 25-GLUCURONIDE/CN  
 E11 1 25-HYDROXYVITAMIN D2 25-GLUCURONIDE METHYL ESTER/CN  
 E12 1 25-HYDROXYVITAMIN D2 3-ACETATE/CN  
 E13 1 25-HYDROXYVITAMIN D3/CN  
 E14 1 25-HYDROXYVITAMIN D3 1-HYDROXYLASE/CN  
 E15 1 25-HYDROXYVITAMIN D3 1A-HYDROXYLASE/CN  
 E16 1 25-HYDROXYVITAMIN D3 1A-HYDROXYLASE (HUMAN KIDNEY)/CN  
 E17 1 25-HYDROXYVITAMIN D3 1A-HYDROXYLASE (HUMAN)/CN  
 E18 1 25-HYDROXYVITAMIN D3 1A-HYDROXYLASE (MOUSE KIDNEY)/CN  
 E19 1 25-HYDROXYVITAMIN D3 1A-HYDROXYLASE (SWINE CLONE 1AH54)/CN  
 E20 1 25-HYDROXYVITAMIN D3 23-HYDROXYLASE/CN  
 E21 1 25-HYDROXYVITAMIN D3 24-HYDROXYLASE/CN  
 E22 1 25-HYDROXYVITAMIN D3 24-HYDROXYLASE (RAT CLONE PCC24-8)/CN  
 E23 1 25-HYDROXYVITAMIN D3 24R-HYDROXYLASE/CN  
 E24 1 25-HYDROXYVITAMIN D3 25-GLUCURONIDE/CN  
 E25 1 25-HYDROXYVITAMIN D3 25-SULFATE/CN

=> S E3

L1 3 "25-HYDROXYVITAMIN D"/CN

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	5.85	6.06

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=> s l3

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=> s l1

L2 4377 L1

=> s l1/thu

4377 L1

863949 THU/RL

L3 163 L1/THU

(L1 (L) THU/RL)

=> s cancer? or tumor? or neoplas?

323558 CANCER?

460709 TUMOR?

483966 NEOPLAS?

L4 763440 CANCER? OR TUMOR? OR NEOPLAS?

=> s l4 and l3

L5 52 L4 AND L3

=> s l5 not py>1999

7787126 PY>1999

L6 6 L5 NOT PY>1999

=> d ibib 1-6

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:34433 CAPLUS <<LOGINID::20070307>>

DOCUMENT NUMBER: 130:76152

TITLE: Cell culture model for drug bioavailability

INVENTOR(S): Watkins, Paul B.; Schmiedlin-Ren, Phyllissa

PATENT ASSIGNEE(S): The Regents of the University of Michigan, USA

SOURCE: U.S., 43 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5856189	A	19990105	US 1997-779596	19970107
PRIORITY APPLN. INFO.:			US 1997-779596	19970107
REFERENCE COUNT:	3	THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:593943 CAPLUS <<LOGINID::20070307>>

DOCUMENT NUMBER: 127:242931

TITLE: Synergistic induction of HL60 cell differentiation by ketoconazole and 1-desoxy analogs of vitamin D3

AUTHOR(S): Wang, Xuening; Gardner, Jeffrey P.; Kheir, Ahmed; Uskokovic, Milan R.; Studzinski, George P.

CORPORATE SOURCE: Department of Pathology & Laboratory Medicine, UMDNJ-New Jersey Medical School, Newark, NJ, 07103, USA

SOURCE: Journal of the National Cancer Institute (1997), 89(16), 1199-1206

PUBLISHER: CODEN: JNCIEQ; ISSN: 0027-8874  
Oxford University Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1995:706195 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 123:161606  
TITLE: Actions of 1,25-dihydroxyvitamin D and synthetic  
analogues on cultured human prostate carcinoma cells  
AUTHOR(S): Skowronski, Roman J.; Peehl, Donna M.; Cramer, Scott;  
Feldman, David  
CORPORATE SOURCE: School Medicine, Stanford University, Stanford, CA,  
94305, USA  
SOURCE: Proceedings of the Workshop on Vitamin D (1994),  
9th(Vitamin D), 520-1  
CODEN: PWVDDU; ISSN: 0721-7110  
PUBLISHER: de Gruyter  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1995:706091 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 123:276673  
TITLE: Vitamin D metabolism in human colon  
adenocarcinoma-derived Caco-2 cells  
AUTHOR(S): Cross, Heide S.; Peterlik, Meinrad; Egger, Helmut;  
Schuster, Inge  
CORPORATE SOURCE: Medical School, University Vienna, Vienna, Austria  
SOURCE: Proceedings of the Workshop on Vitamin D (1994),  
9th(Vitamin D), 174-5  
CODEN: PWVDDU; ISSN: 0721-7110  
PUBLISHER: de Gruyter  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1995:326434 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 122:96002  
TITLE: Actions of vitamin D3 analogues on human prostate  
cancer cell lines: comparison with  
1,25-dihydroxyvitamin D3  
AUTHOR(S): Skowronski, Roman J.; Peehl, Donna M.; Feldman, David  
CORPORATE SOURCE: Dep. Med. and Urology (D.M.P.), Stanford Univ. Sch.  
Med., Stanford, CA, 94305, USA  
SOURCE: Endocrinology (1995), 136(1), 20-6  
CODEN: ENDOAO; ISSN: 0013-7227  
PUBLISHER: Endocrine Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1982:622981 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 97:222981  
TITLE: Antitumor formulations containing vitamin D3  
derivatives  
PATENT ASSIGNEE(S): Chugai Pharmaceutical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57149224	A	19820914	JP 1981-35218	19810313
JP 01015484	B	19890317		
US 4391802	A	19830705	US 1982-356385	19820309
PRIORITY APPLN. INFO.:			JP 1981-35218	A 19810313

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L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1999:34433 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 130:76152  
TITLE: Cell culture model for drug bioavailability  
INVENTOR(S): Watkins, Paul B.; Schmiedlin-Ren, Phyllissa  
PATENT ASSIGNEE(S): The Regents of the University of Michigan, USA  
SOURCE: U.S., 43 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5856189	A	19990105	US 1997-779596	19970107
PRIORITY APPLN. INFO.:			US 1997-779596	19970107

AB A model utilizing cells for assessing oral bioavailability and potential drug-drug interactions of pharmacol. agents is described. The model subjects cells (e.g., Caco-2 cells) to conditions that result in reliable expression of catalytically-active CYP3A4 at levels that appear to be comparable to levels present in mature enterocytes. These conditions include plating of selected clones on an extracellular matrix, exposure to 1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub> for a defined period of time, and the presence of serum in the medium. The model is useful for defining the role of CYP3A4 in limiting the oral bioavailability of many pharmacol. agents and in drug-drug interactions involving CYP3A4 substrates that are believed to occur largely at the level of the intestine.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT Pancreas, neoplasm  
Stomach, neoplasm  
(adenocarcinoma; cell culture model for drug bioavailability)  
IT Pancreas, neoplasm  
Stomach, neoplasm  
(carcinoma; cell culture model for drug bioavailability)  
IT Intestine, neoplasm  
(colon, adenocarcinoma; cell culture model for drug bioavailability)  
IT Liver, neoplasm  
(hepatoma; cell culture model for drug bioavailability)  
IT 67-97-0, Vitamin D<sub>3</sub> 67-97-0D, Vitamin D<sub>3</sub>, analogs 19356-17-3,  
25-Hydroxyvitamin D<sub>3</sub> 32222-06-3, 1 $\alpha$ ,25-Dihydroxyvitamin D<sub>3</sub>  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(cell culture model for drug bioavailability)

L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1997:593943 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 127:242931  
TITLE: Synergistic induction of HL60 cell differentiation by ketoconazole and 1-desoxy analogs of vitamin D<sub>3</sub>

AUTHOR(S): Wang, Xuening; Gardner, Jeffrey P.; Kheir, Ahmed;  
Uskokovic, Milan R.; Studzinski, George P.  
CORPORATE SOURCE: Department of Pathology & Laboratory Medicine,  
UMDNJ-New Jersey Medical School, Newark, NJ, 07103,  
USA  
SOURCE: Journal of the National Cancer Institute (1997),  
89(16), 1199-1206  
CODEN: JNCIEQ; ISSN: 0027-8874  
PUBLISHER: Oxford University Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The goal of differentiation therapy is to induce cancer cells to stop proliferating and to express characteristics of normal cells. Vitamin D analogs, such as the deltanoids, are being evaluated as differentiation agents in the treatment of several human cancers (e.g., myeloid leukemias); however, these compds. have a tendency to produce hypercalcemia in patients receiving therapy. A combination of a differentiation-inducing deltanoid with a compound that blocks entry of calcium into cells (e.g., ketoconazole) may offer a new approach to differentiation therapy and address the problem of hypercalcemia. We investigated whether various ketoconazole-deltanoid combinations would alter cellular differentiation or intracellular calcium homeostasis in comparison with deltanoids used alone. Cultured human leukemia HL60 cells were treated with ketoconazole-deltanoid combinations. Markers of differentiation (expression of CD11b and CD14 antigens and of non-specific esterase) were measured by flow cytometry and cytochem.; cell cycle distribution was measured by flow cytometry of propidium iodide-stained cells. Expression of differentiation-related genes was assessed by northern blotting and immunoblotting, and changes in intracellular calcium homeostasis were monitored by fluorescence anal. of fura-2-containing cells. Ketoconazole strongly potentiated the differentiating activity of the deltanoids, which exhibited low potency when used alone. Ketoconazole-deltanoid combinations had little effect on HL60 cell-cycle distribution, although the cells did stop proliferating and they differentiated. Ketoconazole-deltanoid combinations produced only minor changes in intracellular calcium homeostasis compared with changes produced by 1,25-dihydroxyvitamin D3, either alone or in combination with ketoconazole. These results suggest that ketoconazole may be useful in combination with vitamin D analogs in the differentiation therapy for myeloid leukemias.

REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The goal of differentiation therapy is to induce cancer cells to stop proliferating and to express characteristics of normal cells. Vitamin D analogs, such as the deltanoids, are being evaluated as differentiation agents in the treatment of several human cancers (e.g., myeloid leukemias); however, these compds. have a tendency to produce hypercalcemia in patients receiving therapy. A combination of a differentiation-inducing deltanoid with a compound that blocks entry of calcium into cells (e.g., ketoconazole) may offer a new approach to differentiation therapy and address the problem of hypercalcemia. We investigated whether various ketoconazole-deltanoid combinations would alter cellular differentiation or intracellular calcium homeostasis in comparison with deltanoids used alone. Cultured human leukemia HL60 cells were treated with ketoconazole-deltanoid combinations. Markers of differentiation (expression of CD11b and CD14 antigens and of non-specific esterase) were measured by flow cytometry and cytochem.; cell cycle distribution was measured by flow cytometry of propidium iodide-stained cells. Expression of differentiation-related genes was assessed by northern blotting and immunoblotting, and changes in intracellular calcium homeostasis were monitored by fluorescence anal. of fura-2-containing cells. Ketoconazole strongly potentiated the differentiating activity of the deltanoids, which exhibited low potency when used alone. Ketoconazole-deltanoid combinations had little effect on HL60 cell-cycle

distribution, although the cells did stop proliferating and they differentiated. Ketoconazole-deltanoid combinations produced only minor changes in intracellular calcium homeostasis compared with changes produced by 1,25-dihydroxyvitamin D3, either alone or in combination with ketoconazole. These results suggest that ketoconazole may be useful in combination with vitamin D analogs in the differentiation therapy for myeloid leukemias.

IT 1406-16-2D, Vitamin D, analogs 19356-17-3, Ro 8-8892  
32222-06-3, Ro 21-5535 65277-42-1, Ketoconazole 124409-59-2, Ro  
24-2287, 124409-60-5, Ro 24-2090 165811-45-0, Ro 25-9887  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(synergistic induction of HL60 cell differentiation by ketoconazole and 1-desoxy analogs of vitamin D3)

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:706195 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 123:161606  
TITLE: Actions of 1,25-dihydroxyvitamin D and synthetic analogs on cultured human prostate carcinoma cells  
AUTHOR(S): Skowronski, Roman J.; Peehl, Donna M.; Cramer, Scott; Feldman, David  
CORPORATE SOURCE: School Medicine, Stanford University, Stanford, CA, 94305, USA  
SOURCE: Proceedings of the Workshop on Vitamin D (1994), 9th(Vitamin D), 520-1  
CODEN: PWVDDU; ISSN: 0721-7110  
PUBLISHER: de Gruyter  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB It is shown that benign and malignant human prostate carcinoma cells possess VDR and that 1,25-dihydroxyvitamin D treatment can elicit an antiproliferative action in these cells. Although binding to VDR is critical for 1,25-dihydroxyvitamin D action, analog data indicates that addnl. factors contribute to determining the magnitude of the biol. response. The strong antiproliferative effects of several synthetic analogs known to exhibit less calcemic activity than 1,25-dihydroxyvitamin D, may indicate their pot. use as an addnl. therapeutic option for treatment of prostate cancer.

AB It is shown that benign and malignant human prostate carcinoma cells possess VDR and that 1,25-dihydroxyvitamin D treatment can elicit an antiproliferative action in these cells. Although binding to VDR is critical for 1,25-dihydroxyvitamin D action, analog data indicates that addnl. factors contribute to determining the magnitude of the biol. response. The strong antiproliferative effects of several synthetic analogs known to exhibit less calcemic activity than 1,25-dihydroxyvitamin D, may indicate their pot. use as an addnl. therapeutic option for treatment of prostate cancer.

IT Prostate gland  
(neoplasm, carcinoma, calcitriol and synthetic analogs effect on cultured human prostate carcinoma cells)

IT Prostate gland  
(neoplasm, carcinoma, inhibitors, calcitriol and synthetic analogs effect on cultured human prostate carcinoma cells)

IT Neoplasm inhibitors  
(prostate gland carcinoma, calcitriol and synthetic analogs effect on cultured human prostate carcinoma cells)

IT 19356-17-3, 25-Hydroxyvitamin D3 32222-06-3, Calcitriol  
32222-06-3D, Calcitriol, analogs 50648-94-7, 1,24,25-Trihydroxyvitamin D3 83150-76-9, Octreotide 112965-21-6, MC 903 124409-58-1  
134404-52-7, EB 1089

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(calcitriol and synthetic analogs effect on cultured human prostate



carcinoma cells)

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1995:706091 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 123:276673  
TITLE: Vitamin D metabolism in human colon  
adenocarcinoma-derived Caco-2 cells  
AUTHOR(S): Cross, Heide S.; Peterlik, Meinrad; Egger, Helmut;  
Schuster, Inge  
CORPORATE SOURCE: Medical School, University Vienna, Vienna, Austria  
SOURCE: Proceedings of the Workshop on Vitamin D (1994),  
9th(Vitamin D), 174-5  
CODEN: PWVDDU; ISSN: 0721-7110  
PUBLISHER: de Gruyter  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Since the intrinsic antiproliferative potential of vitamin D steroids  
might depend on metabolic activation or degradation, pathways of  
[3H]25-(OH)2D3 metabolism in Caco-2 cells were explored. The observations  
point to a central role of 1,25(OH)2D3 in the regulation of oxidative  
25(OH)D3 metabolism in Caco-2 cells; 25(OH)D3-1 $\alpha$  hydroxylase apparently  
is sensitive end-product inhibition, whereas 1,25(OH)2D3 seems to be  
required to induce 25(OH)D3-24-hydroxylase activity. The latter effect  
may reflect the ability of 1,25(OH)2D3 to promote differentiation in colon  
carcinoma cells.  
IT Neoplasm inhibitors  
(vitamin D; metabolic pathways of 25-(OH)2D3 in human colon  
adenocarcinoma-derived Caco-2 cells)  
IT Intestine, neoplasm  
(colon, adenocarcinoma, metabolic pathways of 25-(OH)2D3 in human colon  
adenocarcinoma-derived Caco-2 cells)  
IT 1406-16-2, Vitamin D 19356-17-3, 25-Hydroxycholecalciferol  
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM  
(Metabolic formation); THU (Therapeutic use); BIOL (Biological  
study); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)  
(metabolic pathways of 25-(OH)2D3 in human colon adenocarcinoma-derived  
Caco-2 cells)

L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1995:326434 CAPLUS <<LOGINID::20070307>>  
DOCUMENT NUMBER: 122:96002  
TITLE: Actions of vitamin D3 analogs on human prostate  
cancer cell lines: comparison with  
1,25-dihydroxyvitamin D3  
AUTHOR(S): Skowronski, Roman J.; Peehl, Donna M.; Feldman, David  
CORPORATE SOURCE: Dep. Med. and Urology (D.M.P.), Stanford Univ. Sch.  
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SOURCE: Endocrinology (1995), 136(1), 20-6.  
CODEN: ENDOAO; ISSN: 0013-7227  
PUBLISHER: Endocrine Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Data from epidemiol. studies has suggested that vitamin D deficiency may  
promote prostate cancer, although the mechanism is not  
understood. The authors have previously demonstrated the presence of  
vitamin D receptors (VDR) in three human prostate carcinoma cell lines  
(LNCaP, PC-3, and DU-145) as well as in primary cultures of stromal and  
epithelial cells derived from normal and malignant prostate tissues. The  
authors have also shown that 1,25-dihydroxyvitamin D3 [1,25-(OH)2D3] can  
elicit an antiproliferative action in these cells. In the present study  
the authors compared the biol. actions of 1,25-(OH)2D3 to those of a  
series of natural vitamin D3 metabolites and several synthetic analogs of  
vitamin D3 known to exhibit less hypercalcemic activity in vivo. In  
ligand binding competition expts., the authors demonstrated the following

order of potency in displacing [3H]1,25-(OH)2D3 from VDR: EB-1089 > 1,25-(OH)2D3 > MC-903 > 1,24,25(OH)3D3 > 22-oxacalcitriol (OCT) > 1 $\alpha$ ,25-dihydroxy-16-ene-cholecalciferol (Ro 24-2637) > 25-hydroxyvitamin D3, with EB-1089 being .apprx.2-fold more potent than the native hormone. No competitive activity was found for 25-hydroxy-16,23-diene-cholecalciferol. When compared for ability to inhibit proliferation of LNCaP cells, MC-903, EB-1089, OCT, and Ro 24-2637 exhibited 4-, 3-, 3-, and 2-fold greater inhibitory activity than 1,25-(OH)2D3. Interestingly, although OCT and Ro 24-2637 exhibit, resp., 10 and 14 times lower affinity for VDR than 1,25-(OH)2D3, both compds. inhibited the proliferation of LNCaP cells with a potency greater than that of the native hormone. The relative potency of vitamin D3 metabolites and analogs to inhibit cell proliferation correlated well with the ability of these compds. to stimulate prostate-specific antigen secretion by LNCaP cells as well as with their potency to induce the 25-hydroxyvitamin D3-24-hydroxylase mRNA transcript in PC-3 cells. In conclusion, these results demonstrate that synthetic analogs of vitamin D3, known to exhibit reduced calcemic activity, can elicit antiproliferative effects and other biol. actions in LNCaP and PC-3 cell lines. It is noteworthy that although binding to VDR is critical for 1,25-(OH)2D3 action, the analog data indicate that addnl. factors significantly contribute to the magnitude of the biol. response. Finally, the strong antiproliferative effects of several synthetic analogs known to exhibit less calcemic activity than 1,25-(OH)2D3 suggest that these compds. potentially may be useful as an addnl. therapeutic option for the treatment of prostate cancer.

TI Actions of vitamin D3 analogs on human prostate cancer cell lines: comparison with 1,25-dihydroxyvitamin D3

AB Data from epidemiol. studies has suggested that vitamin D deficiency may promote prostate cancer, although the mechanism is not understood. The authors have previously demonstrated the presence of vitamin D receptors (VDR) in three human prostate carcinoma cell lines (LNCaP, PC-3, and DU-145) as well as in primary cultures of stromal and epithelial cells derived from normal and malignant prostate tissues. The authors have also shown that 1,25-dihydroxyvitamin D3 [1,25-(OH)2D3] can elicit an antiproliferative action in these cells. In the present study the authors compared the biol. actions of 1,25-(OH)2D3 to those of a series of natural vitamin D3 metabolites and several synthetic analogs of vitamin D3 known to exhibit less hypercalcemic activity in vivo. In ligand binding competition expts., the authors demonstrated the following order of potency in displacing [3H]1,25-(OH)2D3 from VDR: EB-1089 > 1,25-(OH)2D3 > MC-903 > 1,24,25(OH)3D3 > 22-oxacalcitriol (OCT) > 1 $\alpha$ ,25-dihydroxy-16-ene-cholecalciferol (Ro 24-2637) > 25-hydroxyvitamin D3, with EB-1089 being .apprx.2-fold more potent than the native hormone. No competitive activity was found for 25-hydroxy-16,23-diene-cholecalciferol. When compared for ability to inhibit proliferation of LNCaP cells, MC-903, EB-1089, OCT, and Ro 24-2637 exhibited 4-, 3-, 3-, and 2-fold greater inhibitory activity than 1,25-(OH)2D3. Interestingly, although OCT and Ro 24-2637 exhibit, resp., 10 and 14 times lower affinity for VDR than 1,25-(OH)2D3, both compds. inhibited the proliferation of LNCaP cells with a potency greater than that of the native hormone. The relative potency of vitamin D3 metabolites and analogs to inhibit cell proliferation correlated well with the ability of these compds. to stimulate prostate-specific antigen secretion by LNCaP cells as well as with their potency to induce the 25-hydroxyvitamin D3-24-hydroxylase mRNA transcript in PC-3 cells. In conclusion, these results demonstrate that synthetic analogs of vitamin D3, known to exhibit reduced calcemic activity, can elicit antiproliferative effects and other biol. actions in LNCaP and PC-3 cell lines. It is noteworthy that although binding to VDR is critical for 1,25-(OH)2D3 action, the analog data indicate that addnl. factors significantly contribute to the magnitude of the biol. response. Finally, the strong antiproliferative effects of several synthetic analogs known to exhibit less calcemic activity than 1,25-(OH)2D3 suggest that these

compds. potentially may be useful as an addnl. therapeutic option for the treatment of prostate cancer.

ST vitamin D3 analog prostate cancer

IT Neoplasm inhibitors

(vitamin D3 analog effects on human prostate cancer cell lines in comparison with 1,25-dihydroxyvitamin D3)

IT Antigens

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(PSA (prostate-specific antigen), vitamin D3 analog effects on human prostate cancer cell lines in comparison with 1,25-dihydroxyvitamin D3)

IT Prostate gland

(neoplasm, vitamin D3 analog effects on human prostate cancer cell lines in comparison with 1,25-dihydroxyvitamin D3)

IT Receptors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(vitamin D, vitamin D3 analog effects on human prostate cancer cell lines in comparison with 1,25-dihydroxyvitamin D3)

IT 67-97-0D, Vitamin D3, analogs 19356-17-3, 25-Hydroxyvitamin D3

32222-06-3, Calcitriol 50648-94-7, 1,24,25-Trihydroxy vitamin D3

103909-75-7, 22-Oxacalcitriol 112965-21-6, MC-903 124409-58-1

124409-59-2, 9,10-Secocholesta-5,7,10(19),16,23-pentaene-3,25-diol,

(3 $\beta$ ,5Z,7E,23E)- 134404-52-7, EB-1089

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vitamin D3 analog effects on human prostate cancer cell lines in comparison with 1,25-dihydroxyvitamin D3)

IT 53112-53-1, 25-Hydroxyvitamin D3-24-hydroxylase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(vitamin D3 analog effects on human prostate cancer cell lines in comparison with 1,25-dihydroxyvitamin D3)

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ACCESSION NUMBER: 1982:622981 CAPLUS <<LOGINID::20070307>>

DOCUMENT NUMBER: 97:222981

TITLE: Antitumor formulations containing vitamin D3 derivatives

PATENT ASSIGNEE(S): Chugai Pharmaceutical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

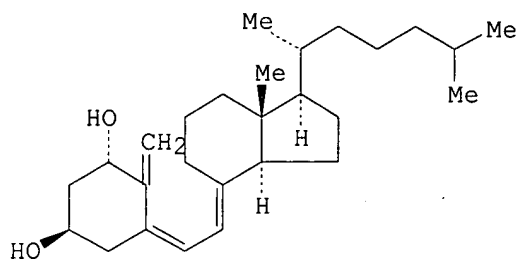
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 57149224	A	19820914	JP 1981-35218	19810313
JP 01015484	B	19890317		
US 4391802	A	19830705	US 1982-356385	19820309
PRIORITY APPLN. INFO.:			JP 1981-35218	A 19810313

GI



I

AB Antitumor formulations contain vitamin D3 derivs. For example, 1 mg  
 1α-hydroxyvitamin D3 (I) [41294-56-8] was dissolved in 60 g  
 triglycerides, and 3 mg sorbic acid as a stabilizer was added. The mixture  
 was encapsulated such that each capsule contained 1 µg I. The  
 antitumor activity of I was demonstrated in patients with leukemia.  
 ST vitamin D3 deriv neoplasm inhibitor; hydroxyvitamin D3  
 neoplasm inhibitor  
 IT Neoplasm inhibitors  
 (hydroxyvitamin D3 derivs.)  
 IT 19356-17-3 32222-06-3 41294-56-8  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antitumor formulations containing)

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---Logging off of STN---

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	ENTRY	SESSION
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